UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,736	01/21/2004	Jani Lainema	297-009168-US (C01)	5610

2512 7590 08/20/2008

PERMAN & GREEN
425 POST ROAD
FAIRFIELD, CT 06824

EXAMINER	
WONG, ALLEN C	

ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
08/20/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/762,736	LAINEMA ET AL.	
	Examiner	Art Unit	
	Allen Wong	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/2/08 with respect to claims 33-39 have been read and considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claim 39 objected to because of the following informalities: claim 39 does not have a period, since claim ends with "segment; and". Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 33-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nieweglowski (WO 97/16025) in view of Yagasaki (5,428,396).

Regarding claim 33, Nieweglowski discloses a method for decoding encoded video information, the method comprising:

determining a prediction error quantizer from the encoded video information, the prediction error quantizer used to quantize the prediction error transform coefficients (fig.2, Nieweglowski's element 22 determines the prediction error quantizer from the encoded video information as obtained from the encoder shown in fig.1, see page 2, lines 1-7); and

determining the prediction error quantizer, the motion coefficients representing the motion of a picture segment (fig.2, note, from fig.1, element 3 is the motion field coding section that produces the “motion coefficients” that are multiplexed and sent to the decoder of fig.2, where element 21 obtains the motion coefficient data of the picture segment data, and that fig.5 discloses a motion field coder with quantization or QR values determined, see line 14 on page 8 to line 9 on page 9).

Nieweglowski does not disclose determining an accuracy of the motion coefficients. However, Yagasaki teaches the determination of the accuracy of the motion coefficients (col.13, ln.24-36, Yagasaki discloses the determination of the range of the accuracy values of the motion vector data that contains motion coefficients data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Nieweglowski and Yagasaki, as a whole, for accurately, efficiently encoding and decoding image data while maintaining high image quality and minimizing hardware requirements (Yagasaki col.3, ln.54-61).

Regarding claim 34, Nieweglowski discloses receiving information indicating a motion coefficient quantizer (fig.5, note the motion field coder discloses the “motion coefficient” data produced in motion field coder that includes data with quantization or QR values determined; see line 14 on page 8 to line 9 on page 9). Nieweglowski does not disclose determining the accuracy of the motion coefficients. However, Yagasaki discloses determining the accuracy of the motion coefficients (col.13, ln.24-36, Yagasaki discloses the determination of the range of the accuracy values of the motion vector data that contains motion coefficients data). Therefore, it would have been

obvious to one of ordinary skill in the art to combine the teachings of Nieweglowski and Yagasaki, as a whole, for accurately, efficiently encoding and decoding image data while maintaining high image quality and minimizing hardware requirements (Yagasaki col.3, ln.54-61).

Regarding claim 35, Nieweglowski discloses a decoder for decoding encoded video information, the decoder comprising:

a demultiplexing unit for determining a prediction error quantizer from the encoded video information, the prediction error quantizer used to quantize the prediction error transform coefficients (fig.2, note the “multiplexer” used in Nieweglowski’s fig.2 suppose to function as a demultiplexer since the data obtained from the encoder of fig.1 has a multiplexer for sending data to the decoder embodiment of fig.2, clearly the “multiplexer” in fig.2 is a typo, and is suppose to be a demultiplexer since data obtained by the “multiplexer” or demultiplexer clearly demultiplexes or divide data into two components: encoded prediction error data sent to element 22 and motion data sent to element 21); and

a motion field coding block for determining the prediction error quantizer, the motion coefficients representing the motion of a picture segment (fig.2, note, from fig.1, element 3 is the motion field coding section that produces the “motion coefficients” that are multiplexed and sent to the decoder of fig.2, where element 21 obtains the motion coefficient data of the picture segment data, and that fig.5 discloses a motion field coder with quantization or QR values determined, see line 14 on page 8 to line 9 on page 9).

Nieweglowski does not disclose determining an accuracy of the motion coefficients. However, Yagasaki teaches the determination of the accuracy of the motion coefficients (col.13, ln.24-36, Yagasaki discloses the determination of the range of the accuracy values of the motion vector data that contains motion coefficients data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Nieweglowski and Yagasaki, as a whole, for accurately, efficiently encoding and decoding image data while maintaining high image quality and minimizing hardware requirements (Yagasaki col.3, ln.54-61).

Regarding claim 36, Nieweglowski discloses determining signaling information indicating a motion coefficient quantizer from to obtain the coefficients from the encoded video information (fig.5, note the motion field coder discloses the “motion coefficient” data produced in motion field coder that includes data with quantization or QR values determined; see line 14 on page 8 to line 9 on page 9). Nieweglowski does not disclose selecting the accuracy of the motion coefficients. However, Yagasaki discloses determining and selecting the accuracy of the motion coefficients (col.13, ln.24-36, Yagasaki discloses the determination of the range of the accuracy values of the motion vector data that contains motion coefficients data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Nieweglowski and Yagasaki, as a whole, for accurately, efficiently encoding and decoding image data while maintaining high image quality and minimizing hardware requirements (Yagasaki col.3, ln.54-61).

Regarding claim 37, Nieweglowski discloses a computer software program stored on a computer-readable medium, the software program causing the computer to perform a method for decoding encoded video information (fig.2 is the decoder),

determining a prediction error quantizer from the encoded video information, the prediction error quantizer used to quantize the prediction error transform coefficients (fig.2, Nieweglowski's element 22 determines the prediction error quantizer from the encoded video information as obtained from the encoder shown in fig.1, see page 2, lines 1-7); and

determining the motion coefficients based on the prediction error quantizer, the motion coefficients representing the motion of a picture segment (fig.2, note, from fig.1, element 3 is the motion field coding section that produces the "motion coefficients" that are multiplexed and sent to the decoder of fig.2, where element 21 obtains the motion coefficient data of the picture segment data, and that fig.5 discloses a motion field coder with quantization or QR values determined, see line 14 on page 8 to line 9 on page 9).

Nieweglowski does not disclose determining an accuracy of the motion coefficients. However, Yagasaki teaches the determination of the accuracy of the motion coefficients (col.13, ln.24-36, Yagasaki discloses the determination of the range of the accuracy values of the motion vector data that contains motion coefficients data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Nieweglowski and Yagasaki, as a whole, for accurately, efficiently encoding and decoding image data while maintaining high image quality and minimizing hardware requirements (Yagasaki col.3, ln.54-61).

Regarding claim 38, Nieweglowski discloses receiving information indicating motion coefficient quantizer (fig.2, element 21 receives the motion coefficient quantizer information as encoded from fig.1, wherein fig.5, note the motion field coder discloses the “motion coefficient” data produced in motion field coder that includes data with quantization or QR values determined; see line 14 on page 8 to line 9 on page 9). Nieweglowski does not disclose determining the accuracy of the motion coefficients. However, Yagasaki discloses determining the accuracy of the motion coefficients (col.13, ln.24-36, Yagasaki discloses the determination of the range of the accuracy values of the motion vector data that contains motion coefficients data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Nieweglowski and Yagasaki, as a whole, for accurately, efficiently encoding and decoding image data while maintaining high image quality and minimizing hardware requirements (Yagasaki col.3, ln.54-61).

Regarding claim 39, Nieweglowski discloses an apparatus comprising a decoder for decoding encoded video information, wherein the decoder comprises:

an inverse quantization unit for determining a prediction error quantizer from motion coefficients of the encoded video information, the prediction error quantizer serving to quantize prediction error transform coefficients (fig.2, Nieweglowski’s element 22 determines the prediction error quantizer from the encoded video information as obtained from the encoder shown in fig.1, see page 2, lines 1-7, wherein element 22 must inherently discloses an inverse quantizer for inversely quantizing data as encoded

by “Predictive Error Coding” from figure 1, as the use of quantizers and inverse quantizers are inherent in the art of MPEG); and

determining the prediction error quantizer, the motion coefficients representing the motion of a picture segment (fig.2, note, from fig.1, element 3 is the motion field coding section that produces the “motion coefficients” that are multiplexed and sent to the decoder of fig.2, where element 21 obtains the motion coefficient data of the picture segment data, and that fig.5 discloses a motion field coder with quantization or QR values determined, see line 14 on page 8 to line 9 on page 9).

Nieweglowski does not disclose a further quantization unit for determining an accuracy of the motion coefficients. However, Yagasaki teaches the determination of the accuracy of the motion coefficients (col.13, ln.24-36, Yagasaki discloses the determination of the range of the accuracy values of the motion vector data that contains motion coefficients data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Nieweglowski and Yagasaki, as a whole, for accurately, efficiently encoding and decoding image data while maintaining high image quality and minimizing hardware requirements (Yagasaki col.3, ln.54-61).

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Allen Wong/
Primary Examiner
Art Unit 2621

/Allen Wong/
Primary Examiner, Art Unit 2621
8/21/08